10501 - Extending the Heritage: Clusters, Dust, and Star Formation in M51

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Rupali Chandar (PI)	**Space Telescope Science Institute**	**rupali@stsci.edu**
Dr. Daniela Calzetti (CoI)	Space Telescope Science Institute	calzetti@stsci.edu
Dr. Robert C. Kennicutt Jr. (CoI)	University of Arizona	robk@as.arizona.edu
Dr. Michael W. Regan (CoI)	Space Telescope Science Institute	mregan@stsci.edu
Dr. Eva Schinnerer (CoI) (ESA Member)	Max-Planck-Institut fur Astronomie, Heidelberg	schinner@mpia.de
Dr. Brad C. Whitmore (CoI)	Space Telescope Science Institute	whitmore@stsci.edu

VISITS

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) M51-WFPC2-POS1	WFPC2	1	08-May-2006 21:24:14.0	yes
02	(2) M51-WFPC2-POS2	WFPC2	1	08-May-2006 21:24:17.0	yes
03	(3) M51-WFPC2-POS3	WFPC2	1	08-May-2006 21:24:18.0	yes
04	(4) M51-WFPC2-POS4	WFPC2	1	08-May-2006 21:24:20.0	yes
05	(5) M51-WFPC2-POS5	WFPC2	1	08-May-2006 21:24:21.0	yes
06	(6) M51-WFPC2-POS6	WFPC2	1	08-May-2006 21:24:23.0	yes
07	(7) M51-NIC-POS1	NIC3	3	08-May-2006 21:24:34.0	yes
08	(8) M51-NIC-POS2	NIC3	3	08-May-2006 21:24:50.0	yes

Visit	*Targets*	*Configurations*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
09	(9) M51-NIC-POS3	NIC3	3	08-May-2006 21:25:02.0	yes
10	(10) M51-NIC-POS4	NIC3	3	08-May-2006 21:25:18.0	yes
53	(11) M51-WFPC2-POS3-COPY	WFPC2	1	08-May-2006 21:25:22.0	yes

19 Total Orbits Used

ABSTRACT

Strongly interacting systems in the Local Universe offer the opportunity to investigate the modality of star formation under dynamical conditions more typical of the intermediate redshift Universe (z~0.5-1), at an exquisite resolution unmatched by distant galaxies. M51 is one such system. Most recently, the Hubble Heritage program dedicated 24 HST orbits to obtain a 3X2 ACS mosaic of M51 in BVI, and Halpha. While this is designed to produce a lovely multi-color image of this photogenic target, its scientific return will be limited for star formation studies. Hence we propose to augment these observations by obtaining WFPC2 U band and NICMOS H band primary imaging (with NICMOS Paschen alpha in parallel) of selected pointings of this interacting galaxy system. At the modest cost of 14 additional orbits, we will: (1) accurately determine the ages of the young star cluster population; (2) secure the identification of 60-70 old globular clusters; (3) search for heavily dust enshrouded stellar clusters; (4) investigate the distribution of the cluster populations as a function of location (galactocentric, arms, interarms, etc.); and (5) both remove the effects of dust and determine its properties. In addition to our specific science goals, these observations lend themselves, on their own or in synergy with data from GALEX and Spitzer, to a host of other investigations, including those on evolved diffuse stellar populations, galactic structure, and dust radiative transfer. We will thus release these data early to the community, by relinquishing part of the proprietary period.

OBSERVING DESCRIPTION

We are using 6 orbits for WFPC2/U band imaging and 12 orbits for NICMOS/NIC3 H band imaging (with NICMOS/NIC2 Palpha parallel imaging) of M51. The U band imaging will be used primarily to break the degeneracy between cluster age and reddening. Because this filter is the limiting factor in deriving age and extinction, we use the more efficient F336W filter over the F300W filter. One of the main goals of obtaining the U band imaging is to separate ancient clusters from reddened young objects, reaching at least the presumed turnover in the GC luminosity function. WE find

that this can be done in about 1800s of exposure. Given about 2700s of integration time in the U band possible per orbit, we should be able to reach metal-rich (red) GCs to about 0.5 magnitudes beyond the turnover in the luminosity function. Because detection and morphological parameters will be measured from the deeper ACS/V band images, and the U band is only being used for photometric information, we do not include a dither pattern for the WFPC2 observations.

To match the 5 sigma surface brightness sensitivity of the ACS/I band images of M51, smoothed by a factor of 2 to match the NICMOS F160W resolution, we need to reach 23.3 magnitudes/arc sec squared This can be accomplished with NIC3 in roughly 2100 seconds, or 3/4 of an orbit. In order to cover about 50% of the clusters in the M51 system, we need 16-17 pointings. We are using the UDF 4-point dither pattern at each field location, and the SPARS64 sampling sequence. To move to each field pointing, we use POS-TARGS on top of the UDF dither pattern. This allows us to nicely map the central arm region of M51, while also exploring some outer arm and companion fields.

Visit

Proposal 10501, Visit 01

Tue May 09 01:25:24 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: WFPC2

Special Requirements: ORIENT 300.0D TO 330.0 D

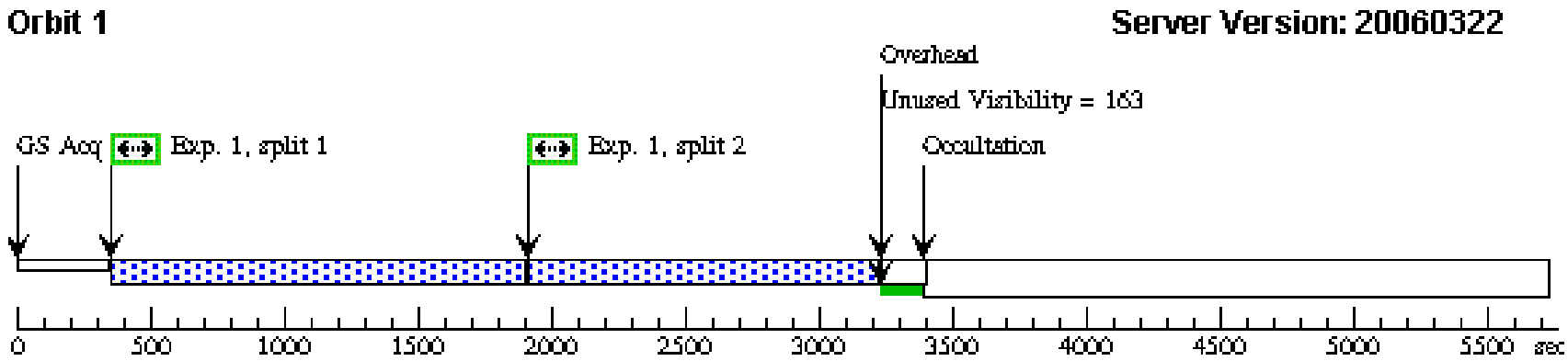
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	M51-WFPC2-POS1	RA: 13 30 0.5200 (202.5021667d) Dec: +47 15 40.40 (47.26122d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS1	(1) M51-WFPC2-POS1	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF	POS TARG 0,0		2700.0 Secs *[==>1300.0 Secs (Split 1)]* *[==>1300.0 Secs (Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 10501, Visit 02

Tue May 09 01:25:24 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: WFPC2

Special Requirements: ORIENT 280.0D TO 300.0 D

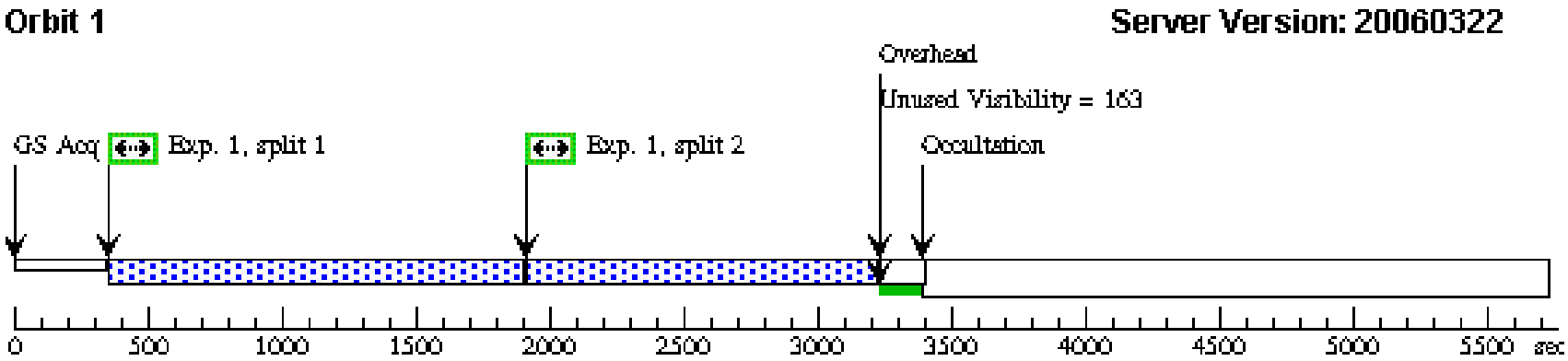
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	M51-WFPC2-POS2	RA: 13 30 7.8000 (202.5325000d) Dec: +47 14 0.50 (47.23347d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS2	(2) M51-WFPC2-POS2	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF			2700.0 Secs *[==>1300.0 Secs (Split 1)]* *[==>1300.0 Secs (Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 10501, Visit 03 Tue May 09 01:25:24 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: WFPC2

Special Requirements: ORIENT 210.0D TO 230.0 D

Diagnostics

(Visit 03) Warning: EXPOSURE TIME DECREASED FOR WFPC

(Visit 03) Warning: EXPOSURE TIME DECREASED FOR WFPC

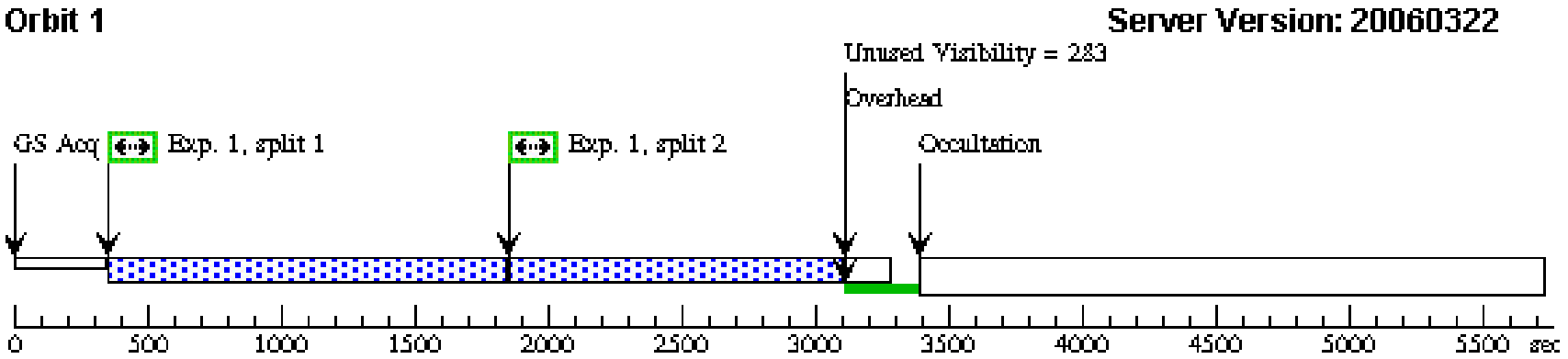
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	M51-WFPC2-POS3	RA: 13 29 55.5000 (202.4812500d) Dec: +47 13 50.00 (47.23056d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS3	(3) M51-WFPC2-POS3	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF			2590.0 Secs *[==>(Split 1)]* *[==>(Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 10501, Visit 04

Tue May 09 01:25:25 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: WFPC2

Special Requirements: ORIENT 300.0D TO 330.0 D

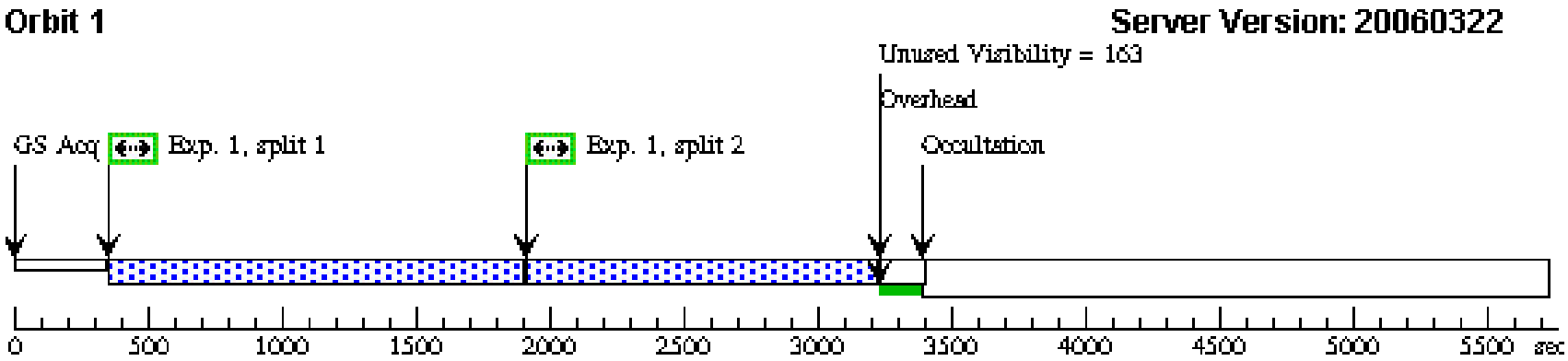
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	M51-WFPC2-POS4	RA: 13 30 5.9000 (202.5245833d) Dec: +47 11 40.00 (47.19444d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS4	(4) M51-WFPC2-POS4	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF			2700.0 Secs *[==>1300.0 Secs (Split 1)]* *[==>1300.0 Secs (Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 10501, Visit 05 Tue May 09 01:25:25 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: WFPC2

Special Requirements: ORIENT 300.0D TO 330.0 D

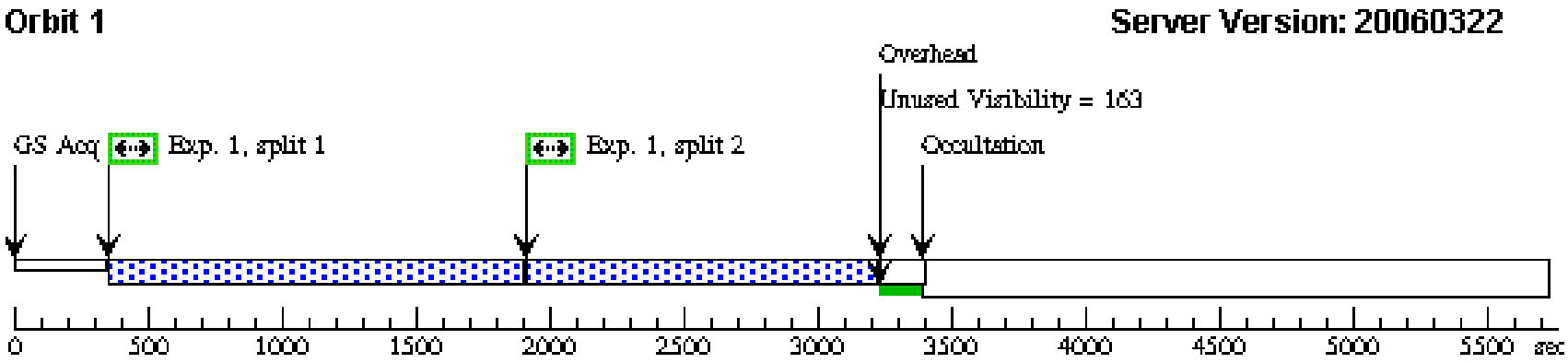
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	M51-WFPC2-POS5	RA: 13 30 0.8700 (202.5036250d) Dec: +47 09 39.37 (47.16094d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS5	(5) M51-WFPC2-POS5	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF	POS TARG 0,0		2700.0 Secs *[==>1300.0 Secs (Split 1)]* *[==>1300.0 Secs (Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 10501, Visit 06

Tue May 09 01:25:25 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: WFPC2

Special Requirements: ORIENT 300.0D TO 330.0 D

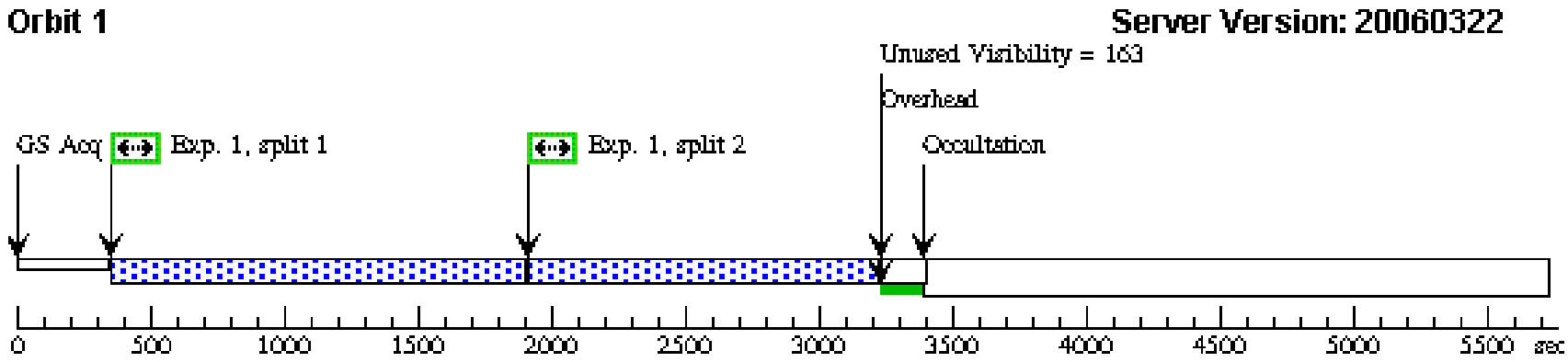
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	M51-WFPC2-POS6	RA: 13 29 46.3200 (202.4430000d) Dec: +47 08 34.39 (47.14289d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS6	(6) M51-WFPC2-POS6	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF	POS TARG 0,0		2700.0 Secs *[==>1300.0 Secs (Split 1)]* *[==>1300.0 Secs (Split 2)]*	*[1]*

Orbit Structure



Visit

Proposal 10501, Visit 07

Tue May 09 01:25:25 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: NIC3

Special Requirements: ORIENT 310.0D TO 320.0 D

Diagnostics

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Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	M51-NIC-POS1	RA: 13 29 43.2229 (202.4300954d) Dec: +47 11 10.73 (47.18631d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-NIC-POS1-1	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	GS ACQ SCENARIO BASE1TNS		*[==>]*	***[1]***
2	M51-NIC-POS1-2	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.585375,0.866935		*[==>]*	***[1]***
3	M51-NIC-POS1-3	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 1.31266, 0.283079		*[==>]*	***[1]***
4	M51-NIC-POS1-4	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.76276, -0.477702		*[==>]*	***[1]***

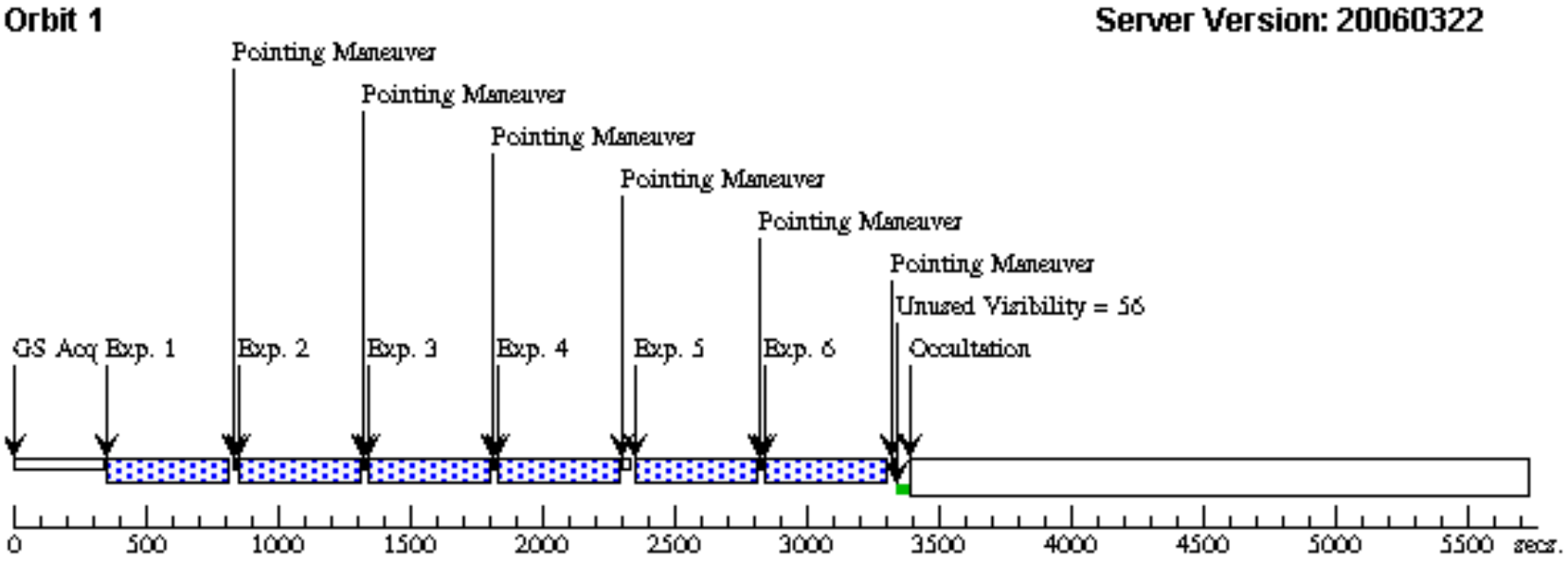
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
5	M51-NIC-POS2-1	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -48.4,0		*[==>]*	***[1]***
6	M51-NIC-POS2-2	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.8146,0.866935		*[==>]*	***[1]***
7	M51-NIC-POS2-3	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.0873,0.283079		*[==>]*	***[2]***
8	M51-NIC-POS2-4	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.6372,-0.477702		*[==>]*	***[2]***
9	M51-NIC-POS3-1	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -40,-48		*[==>]*	***[2]***
10	M51-NIC-POS3-2	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -39.4146,-47.1331		*[==>]*	***[2]***
11	M51-NIC-POS3-3	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -38.6873,-47.7169		*[==>]*	***[2]***
12	M51-NIC-POS3-4	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -39.2372,-48.4777		*[==>]*	***[2]***
13	M51-NIC-POS4-1	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 8,-48		*[==>]*	***[3]***
14	M51-NIC-POS4-2	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 8.585375,-47.1331		*[==>]*	***[3]***
15	M51-NIC-POS4-3	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 9.31266,-47.7169		*[==>]*	***[3]***
16	M51-NIC-POS4-4	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 8.76276,-48.4777		*[==>]*	***[3]***
17	M51-NIC-POS1OFF-1	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 48,-16		*[==>]*	***[3]***
18	M51-NIC-POS1OFF-2	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 48.585375,-15.1331		*[==>]*	***[3]***

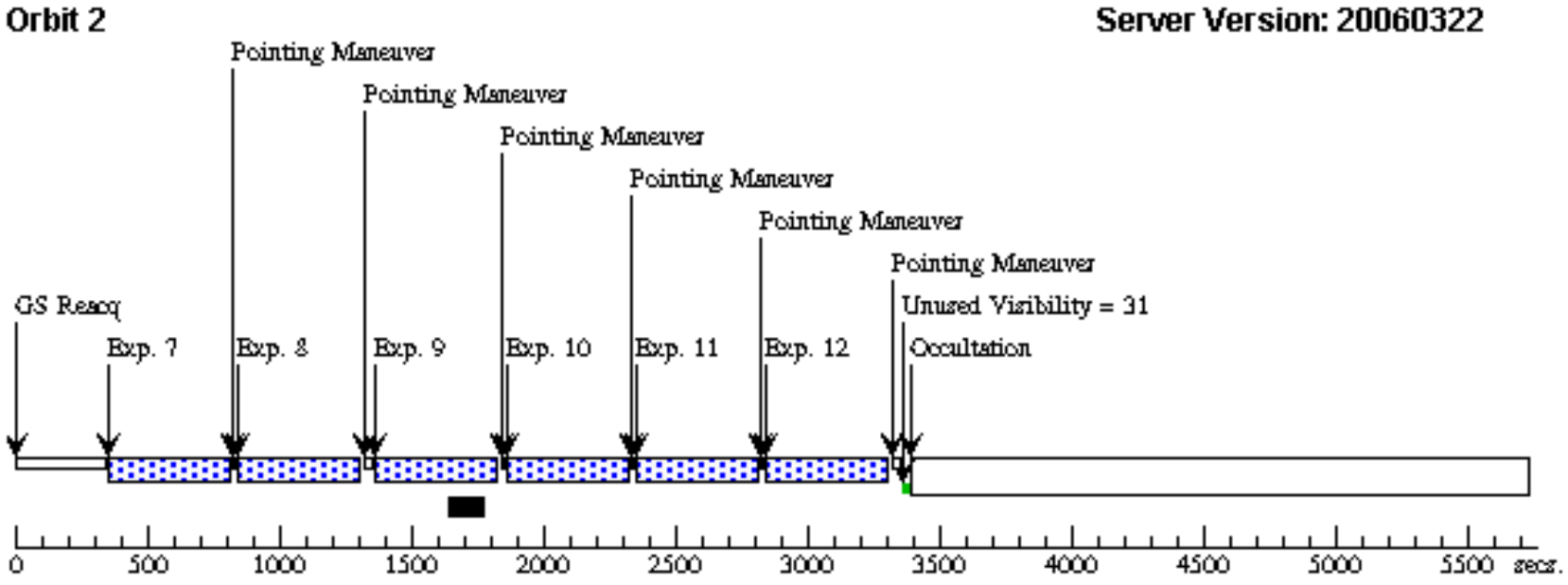
Exposures (continued)

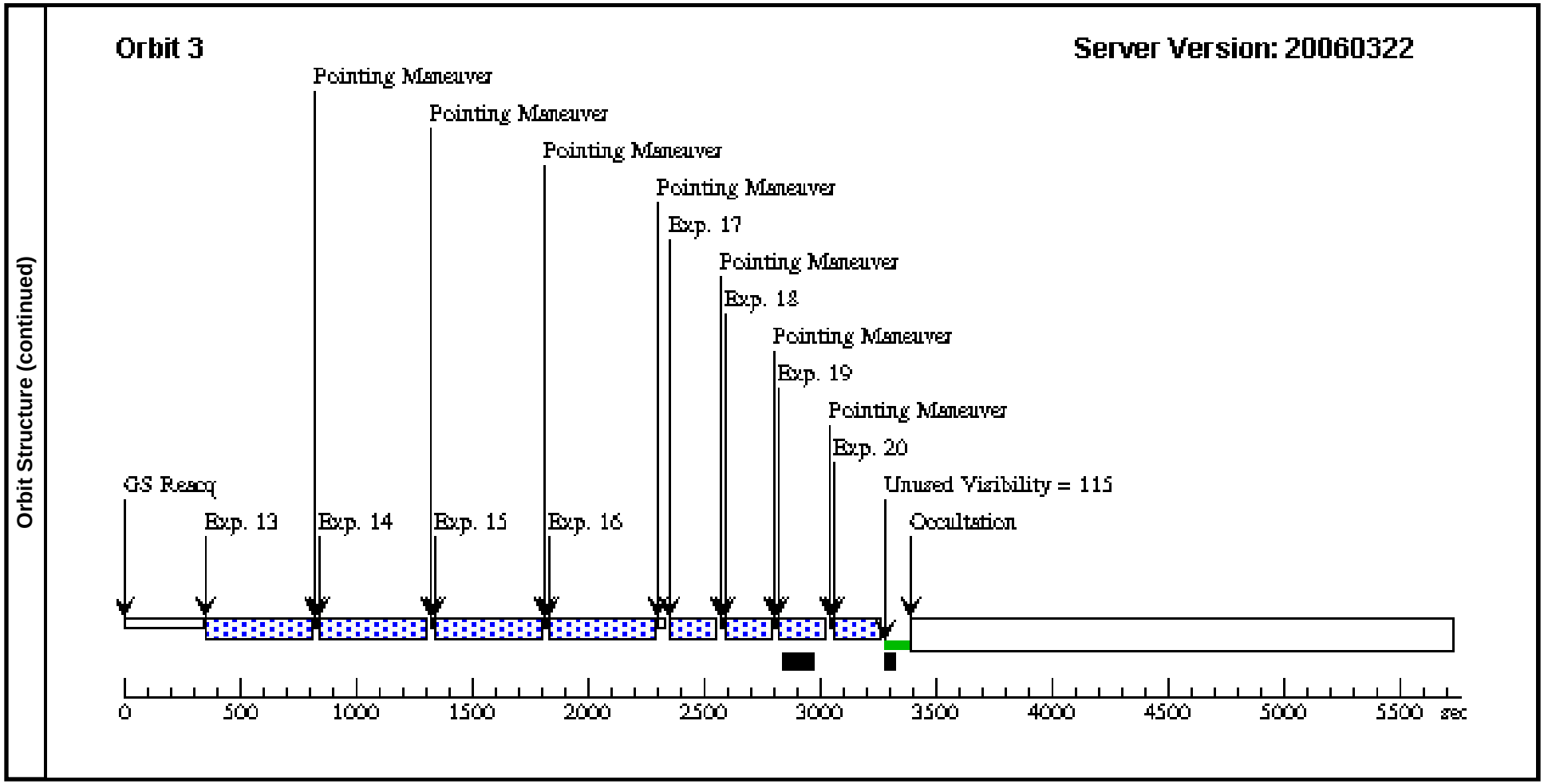
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
19	M51-NIC-POS1OFF-3	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 49.31266,-15.7169		*[==>]*	***[3]***
20	M51-NIC-POS1OFF-4	(7) M51-NIC-POS1	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 48.76276,-16.477702		*[==>]*	***[3]***

Orbit Structure



Orbit Structure (continued)




Orbit Structure (continued)
Orbit 3
Server Version: 20060322
Pointing Maneuver
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Exp. 17
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Exp. 18
Pointing Maneuver
Exp. 19
Pointing Maneuver
Exp. 20
Unused Visibility = 115
GS Reacq
Exp. 13
Exp. 14
Exp. 15
Exp. 16
Occultation
0
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1000
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2000
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3000
3500
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5000
5500
sec

Visit

Proposal 10501, Visit 08 — Tue May 09 01:25:28 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: NIC3

Special Requirements: SAME ORIENT AS 07

Diagnostics

(Visit 08) Warning: POS TARG OUTSIDE OF APERTURE
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Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	M51-NIC-POS2	RA: 13 29 52.6419 (202.4693412d) Dec: +47 11 50.76 (47.19743d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

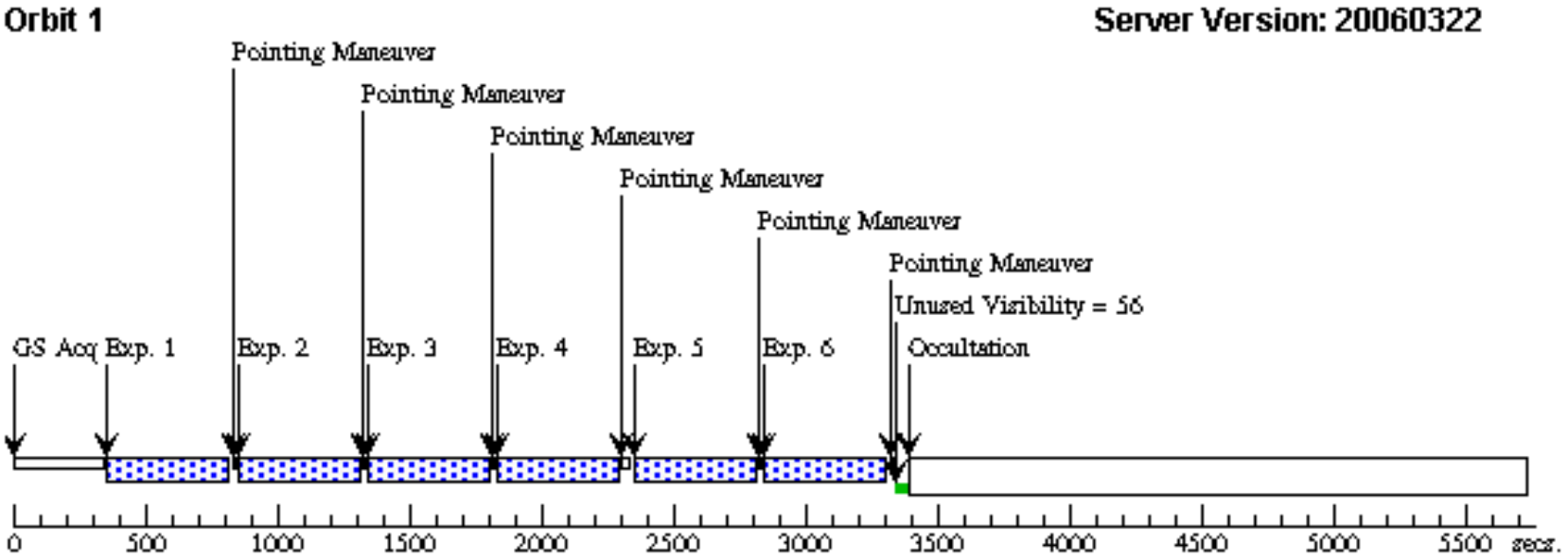
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-NIC-POS5-1	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	GS ACQ SCENARIO BASE1TNS		*[==>]*	***[1]***
2	M51-NIC-POS5-2	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.585375,0.866935		*[==>]*	***[1]***
3	M51-NIC-POS5-3	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 1.31266, 0.283079		*[==>]*	***[1]***
4	M51-NIC-POS5-4	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.76276, -0.4777		*[==>]*	***[1]***
5	M51-NIC-POS8-1	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 48,0		*[==>]*	***[1]***

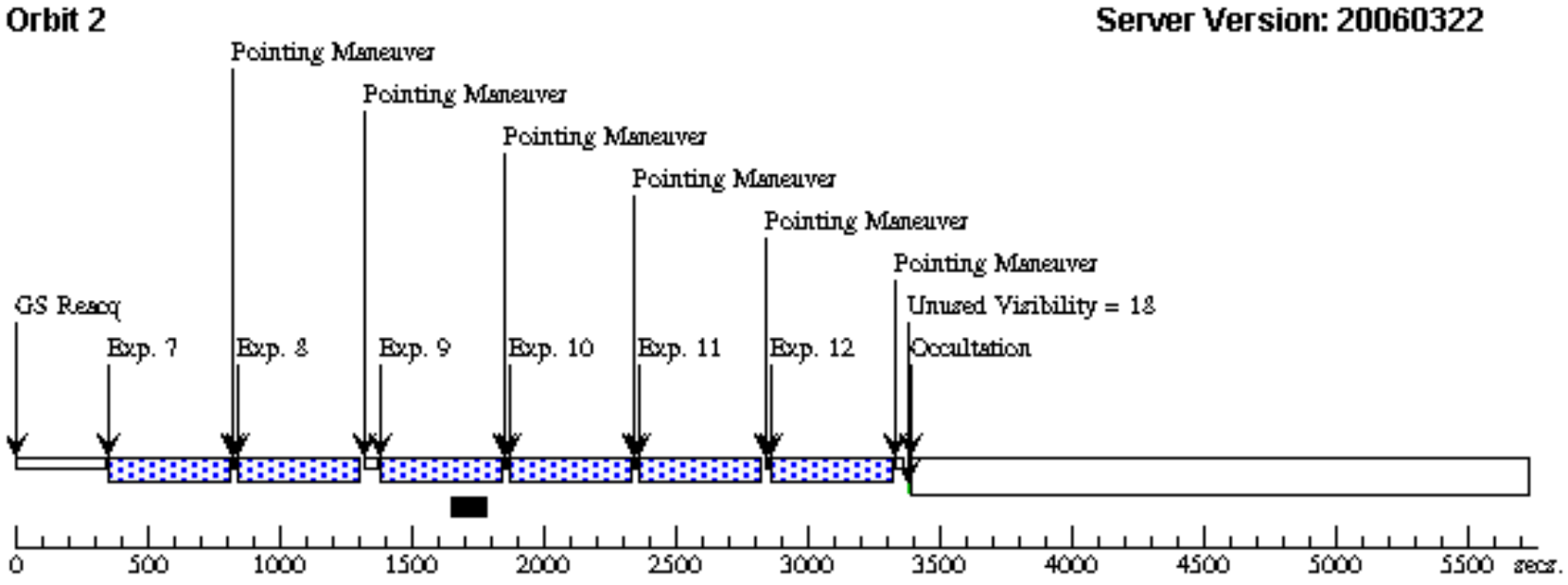
Exposures (continued)

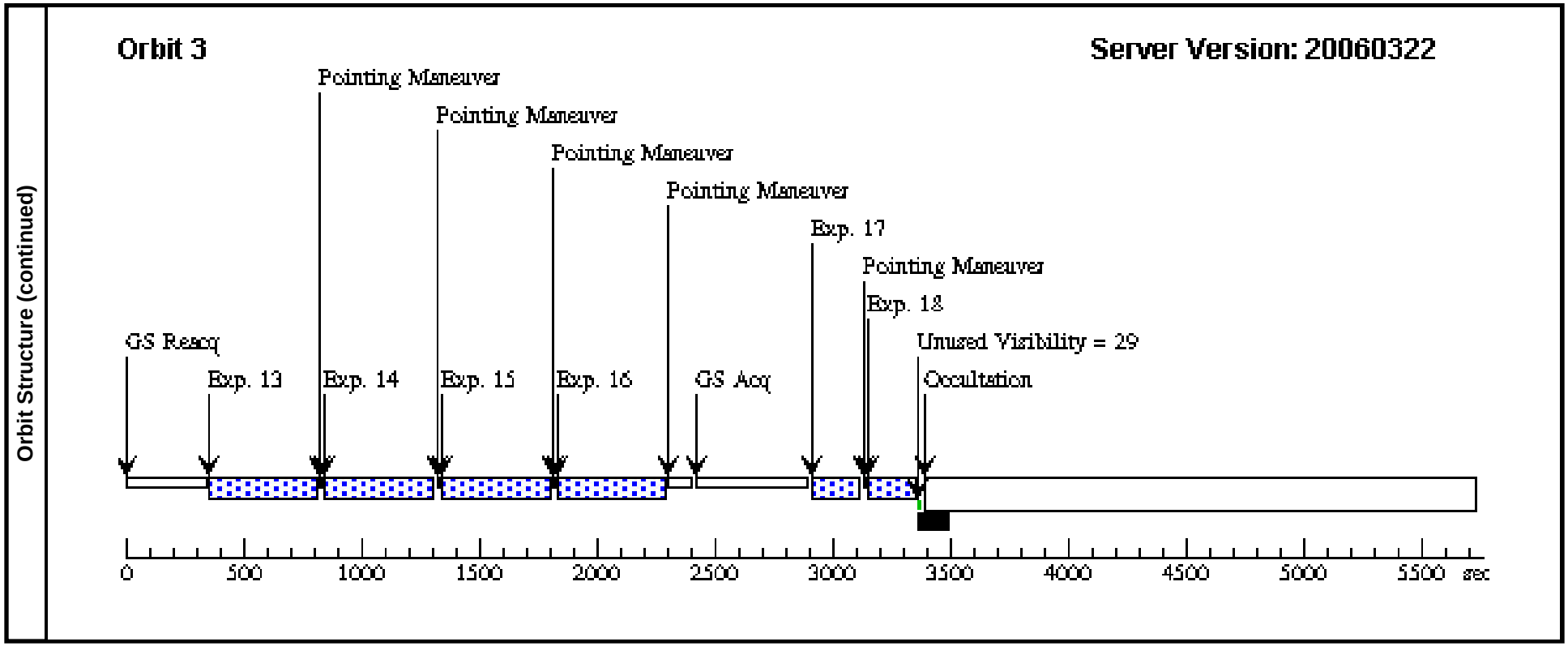
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
6	M51-NIC-POS8-2	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 48.585375,0.866935		*[==>]*	***[1]***
7	M51-NIC-POS8-3	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 49.31266,0.283079		*[==>]*	***[2]***
8	M51-NIC-POS8-4	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 48.76276,-0.4777		*[==>]*	***[2]***
9	M51-NIC-POS7-1	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -48,0		*[==>]*	***[2]***
10	M51-NIC-POS7-2	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.4146,0.866935		*[==>]*	***[2]***
11	M51-NIC-POS7-3	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -46.6873,0.283079		*[==>]*	***[2]***
12	M51-NIC-POS7-4	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.2372,-0.477702		*[==>]*	***[2]***
13	M51-NIC-POS6-1	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -48,48		*[==>]*	***[3]***
14	M51-NIC-POS6-2	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.4146,48.866935		*[==>]*	***[3]***
15	M51-NIC-POS6-3	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -46.6873,48.283079		*[==>]*	***[3]***
16	M51-NIC-POS6-4	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.2372,47.5223		*[==>]*	***[3]***
17	M51-NIC-POS5OFF-1	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG -96,48		*[==>]*	***[3]***
18	M51-NIC-POS5OFF-2	(8) M51-NIC-POS2	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG -95.4146,48.866935		*[==>]*	***[3]***

Orbit Structure



Orbit Structure (continued)




Orbit Structure (continued)
Orbit 3
Server Version: 20060322
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 17
Pointing Maneuver
Exp. 18
Unused Visibility = 29
GS Reacq
Exp. 13
Exp. 14
Exp. 15
Exp. 16
GS Acq
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10501, Visit 09 Tue May 09 01:25:29 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: NIC3

Special Requirements: SAME ORIENT AS 07

Diagnostics

(Visit 09) Warning: POS TARG OUTSIDE OF APERTURE
(Visit 09) Warning: POS TARG OUTSIDE OF APERTURE
(Visit 09) Warning: POS TARG OUTSIDE OF APERTURE
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(Visit 09) Warning: POS TARG OUTSIDE OF APERTURE

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	M51-NIC-POS3	RA: 13 29 57.3514 (202.4889642d) Dec: +47 11 2.76 (47.18410d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-NIC-POS9-1	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	GS ACQ SCENARIO BASE1TNS		*[==>]*	***[1]***
2	M51-NIC-POS9-2	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.585375,0.866935		*[==>]*	***[1]***
3	M51-NIC-POS9-3	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 1.31266, 0.283079		*[==>]*	***[1]***
4	M51-NIC-POS9-4	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.76276, -0.477702		*[==>]*	***[1]***

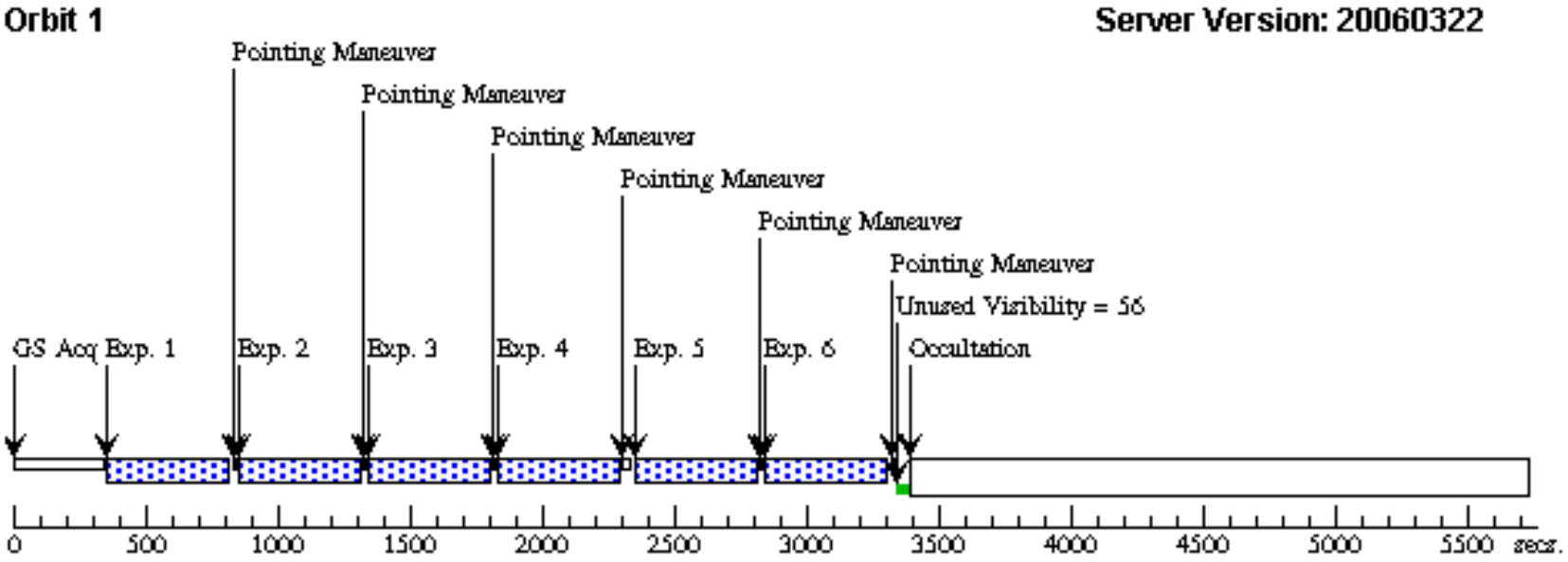
Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
5	M51-NIC-POS10-1	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -48,0		*[==>]*	***[1]***
6	M51-NIC-POS10-2	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.4146,0.866935		*[==>]*	***[1]***
7	M51-NIC-POS10-3	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -46.6873,0.283079		*[==>]*	***[2]***
8	M51-NIC-POS10-4	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.2372,-0.477702		*[==>]*	***[2]***
9	M51-NIC-POS11-1	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -48,-48		*[==>]*	***[2]***
10	M51-NIC-POS11-2	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.4146,-47.1331		*[==>]*	***[2]***
11	M51-NIC-POS11-3	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -46.6873,-47.7169		*[==>]*	***[2]***
12	M51-NIC-POS11-4	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.2372,-48.4777		*[==>]*	***[2]***
13	M51-NIC-POS12-1	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0,-48		*[==>]*	***[3]***
14	M51-NIC-POS12-2	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.585375,-47.1331		*[==>]*	***[3]***
15	M51-NIC-POS12-3	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 1.31266,-47.7169		*[==>]*	***[3]***
16	M51-NIC-POS12-4	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.76276,-48.4777		*[==>]*	***[3]***
17	M51-NIC-POS9OFF-1	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 48,-48		*[==>]*	***[3]***
18	M51-NIC-POS9OFF-2	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 48.585375,-47.1331		*[==>]*	***[3]***

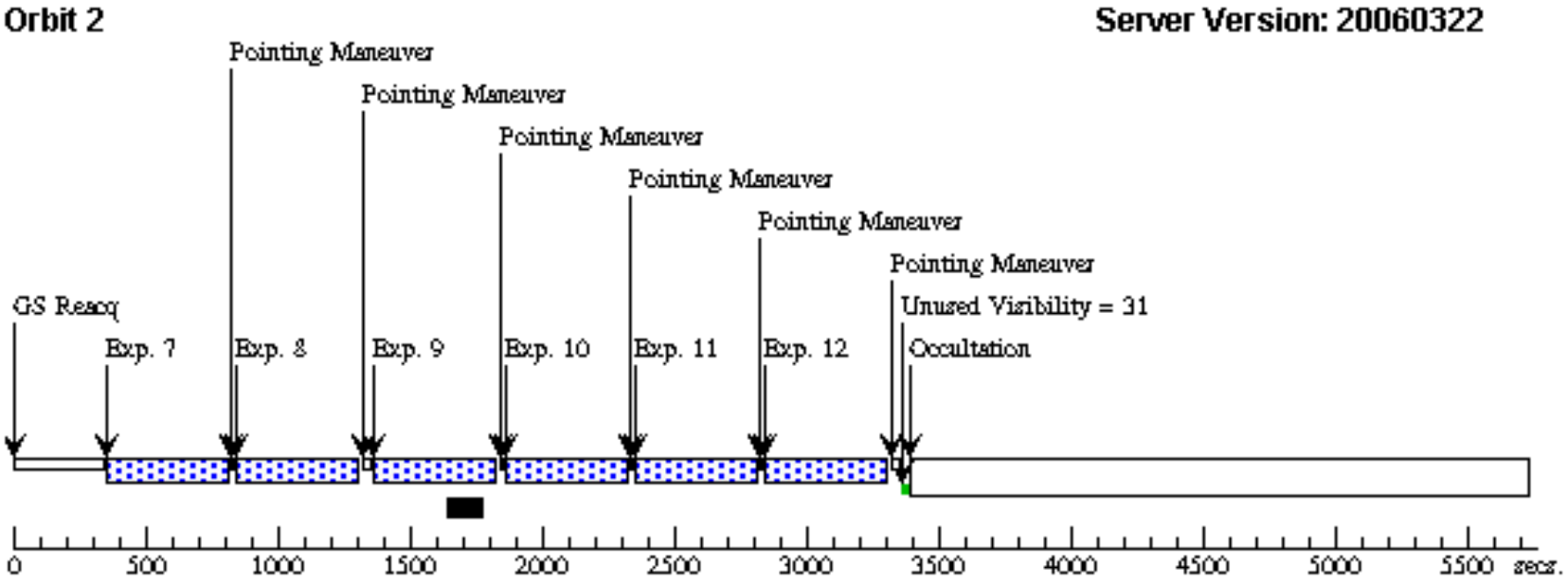
Exposures (continued)

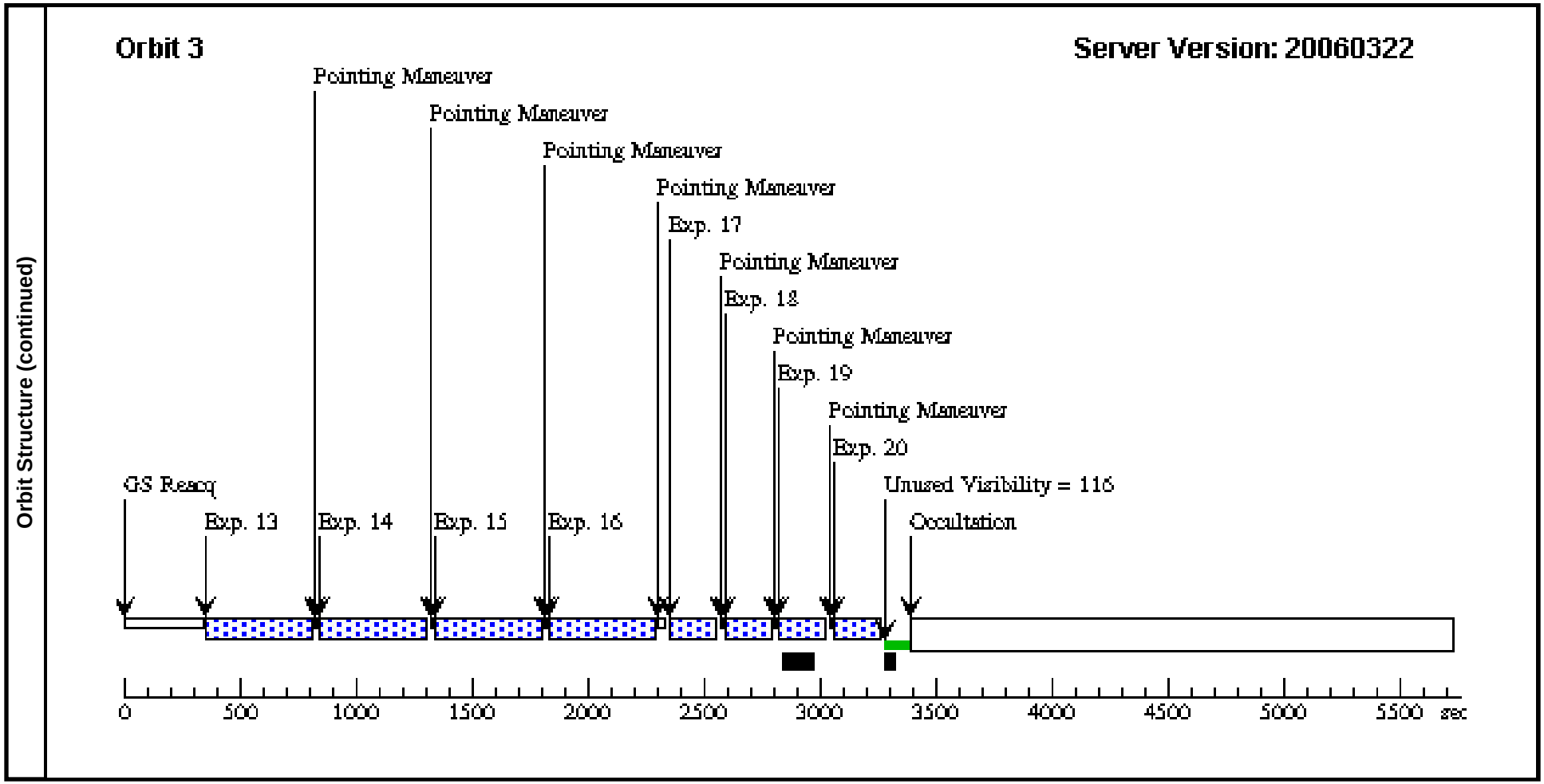
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
19	M51-NIC-POS9OFF-3	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 49.3126,-47.7169		*[==>]*	*[3]*
20	M51-NIC-POS9OFF-4	(9) M51-NIC-POS3	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=5	POS TARG 48.7627,-48.477702		*[==>]*	*[3]*

Orbit Structure



Orbit Structure (continued)




Orbit Structure (continued)
Orbit 3
Server Version: 20060322
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Exp. 17
Pointing Maneuver
Exp. 18
Pointing Maneuver
Exp. 19
Pointing Maneuver
Exp. 20
Unused Visibility = 116
GS Reacq
Exp. 13
Exp. 14
Exp. 15
Exp. 16
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10501, Visit 10 Tue May 09 01:25:31 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: NIC3

Special Requirements: SAME ORIENT AS 07

Diagnostics

(Visit 10) Warning: POS TARG OUTSIDE OF APERTURE
(Visit 10) Warning: POS TARG OUTSIDE OF APERTURE
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Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	M51-NIC-POS4	RA: 13 29 57.3514 (202.4889642d) Dec: +47 12 38.76 (47.21077d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-NIC-POS13-1	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	GS ACQ SCENARIO BASE1TNS		*[==>]*	***[1]***
2	M51-NIC-POS13-2	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.585375,0.866935		*[==>]*	***[1]***
3	M51-NIC-POS13-3	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 1.31266, 0.283079		*[==>]*	***[1]***
4	M51-NIC-POS13-4	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.76276, -0.477702		*[==>]*	***[1]***

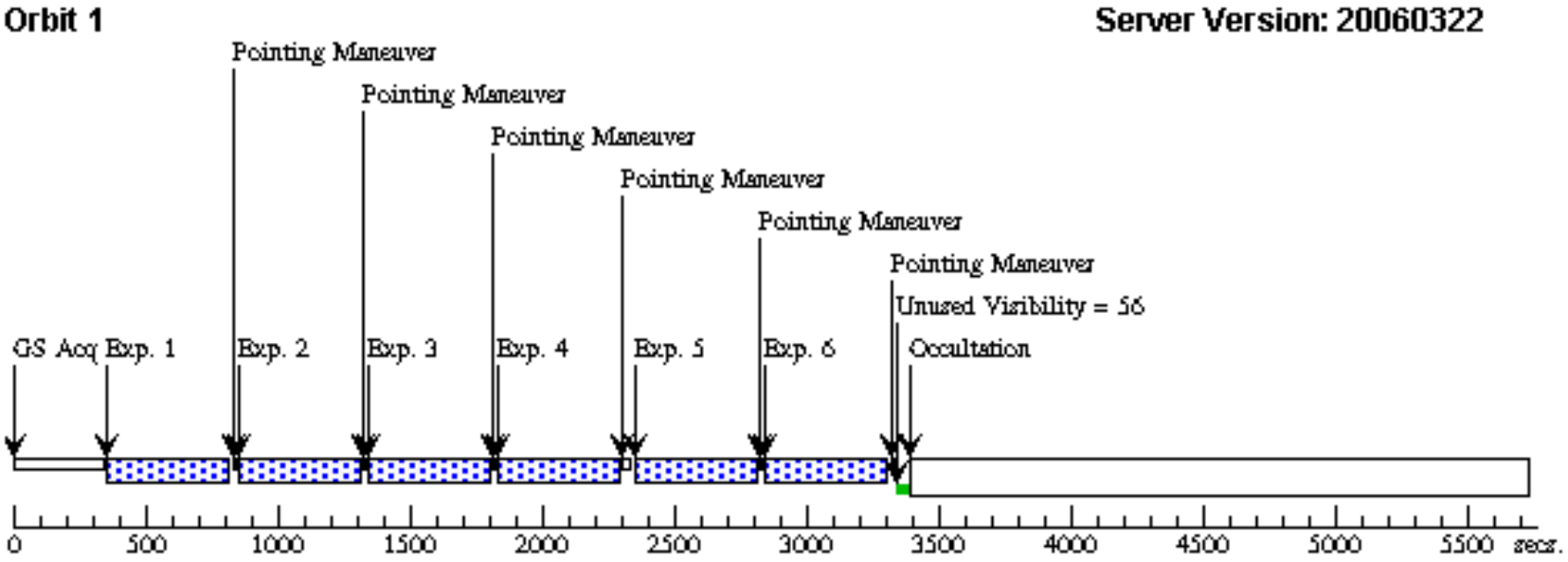
Exposures (continued)

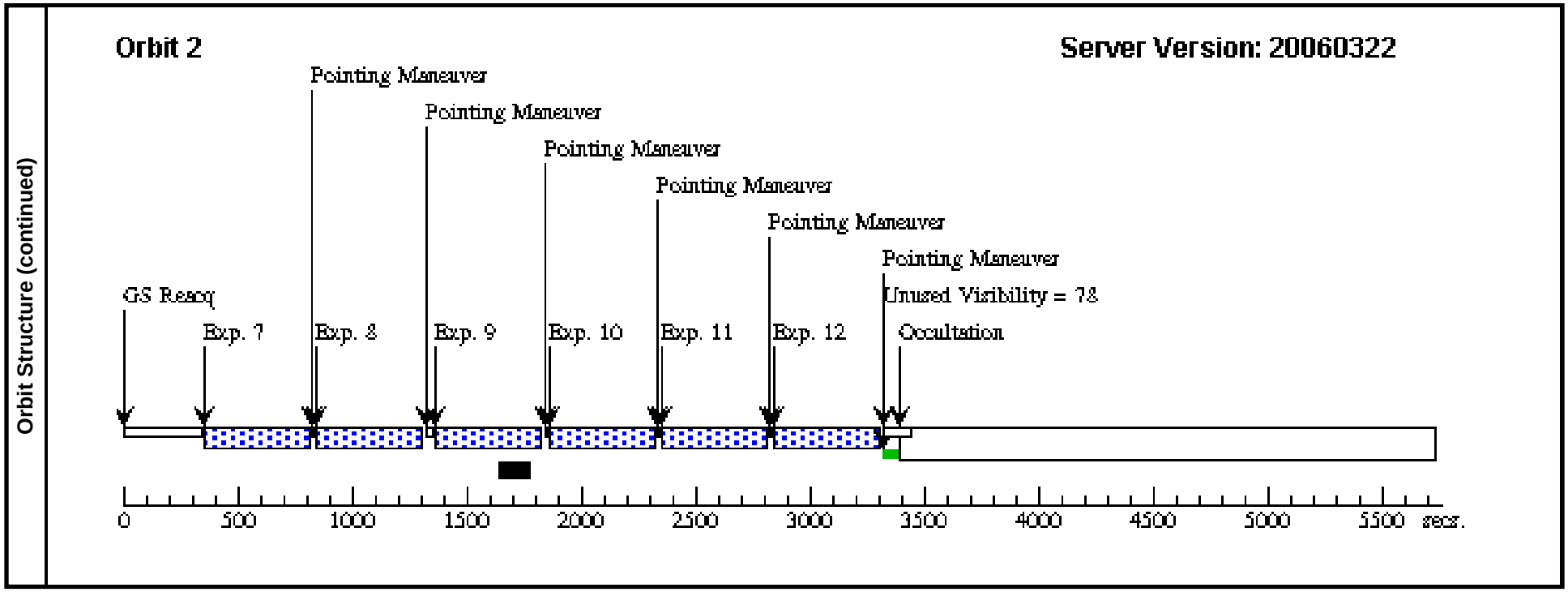
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
5	M51-NIC-POS14-1	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0,-48		*[==>]*	***[1]***
6	M51-NIC-POS14-2	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.585375,-47.1331		*[==>]*	***[1]***
7	M51-NIC-POS14-3	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 1.31266, -47.7169		*[==>]*	***[2]***
8	M51-NIC-POS14-4	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG 0.76276, -48.477702		*[==>]*	***[2]***
9	M51-NIC-POS15-1	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -48,-40		*[==>]*	***[2]***
10	M51-NIC-POS15-2	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.4146,-39.1331		*[==>]*	***[2]***
11	M51-NIC-POS15-3	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -46.6873,-39.7169		*[==>]*	***[2]***
12	M51-NIC-POS15-4	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=9	POS TARG -47.2372,-40.4777		*[==>]*	***[2]***
13	M51-NIC-POS16-1	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -200,-48		*[==>]*	***[3]***
14	M51-NIC-POS16-2	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -199.4146,-47.1331		*[==>]*	***[3]***
15	M51-NIC-POS16-3	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -198.6873,-47.7169		*[==>]*	***[3]***
16	M51-NIC-POS16-4	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -199.2372,-48.4777		*[==>]*	***[3]***
17	M51-NIC-POS17-1	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -200,0		*[==>]*	***[3]***
18	M51-NIC-POS17-2	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -199.4146,0.866935		*[==>]*	***[3]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
19	M51-NIC-POS17-3	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -198.6873,0.283079		*[==>]*	***[3]***
20	M51-NIC-POS17-4	(10) M51-NIC-POS4	NIC3, MULTIACCUM, NIC3-FIX	F160W	SAMP-SEQ=SPARS64; NSAMP=7	POS TARG -199.2372,0.4777		*[==>]*	***[3]***

Orbit Structure




Orbit Structure (continued)
Orbit 2
Server Version: 20060322
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
GS Reacq
Unused Visibility = 78
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Exp. 12
Occultation
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500
1000
1500
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2500
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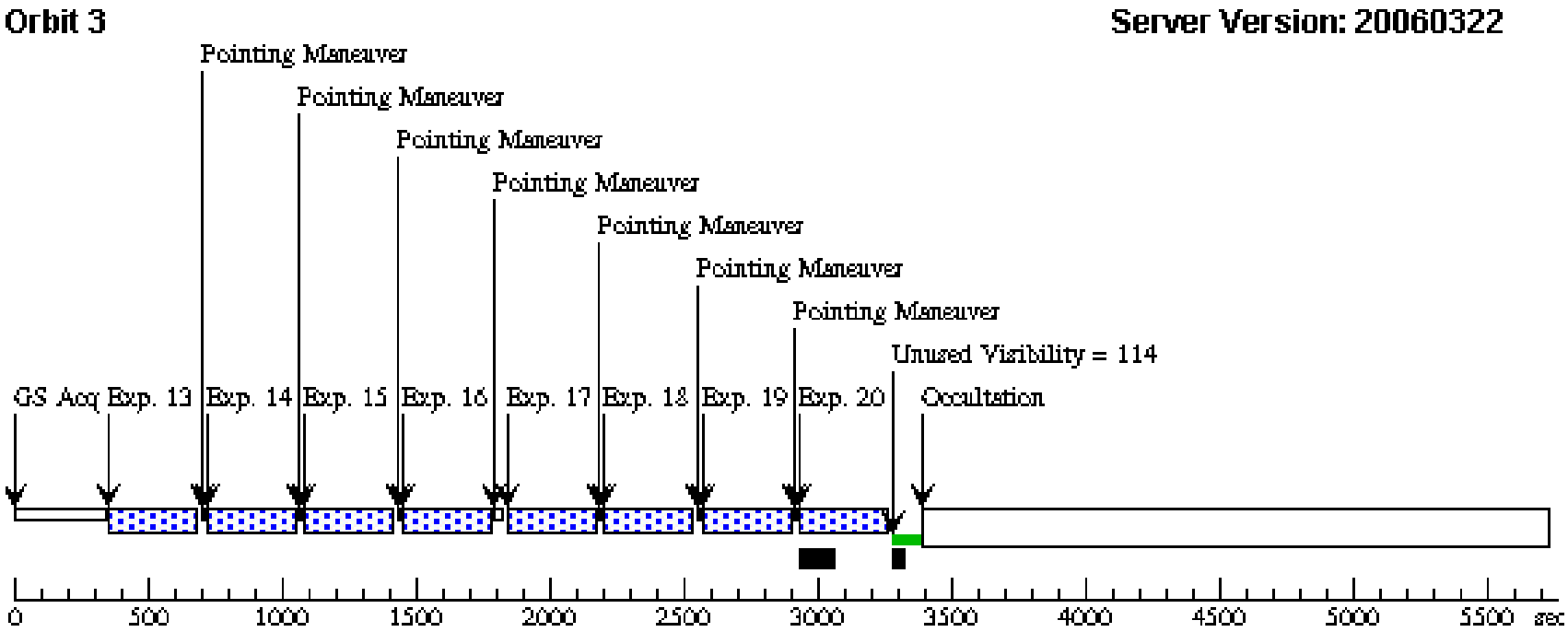
3500
4000
4500
5000
5500
secs.

Orbit Structure (continued)



Visit

Proposal 10501, Visit 53 Tue May 09 01:25:32 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: WFPC2

Special Requirements: ORIENT 147.0D TO 152.0 D

Diagnostics

(Visit 53) Warning: EXPOSURE TIME DECREASED FOR WFPC

(Visit 53) Warning: EXPOSURE TIME DECREASED FOR WFPC

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	M51-WFPC2-POS3-COPY	RA: 13 29 51.6800 (202.4653333d) Dec: +47 15 2.85 (47.25079d) Equinox: J2000 Plate Id: (?)		V=24.0	Coordinate Source: GUIDE_STAR_CATALOG

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	M51-WFPC2-POS3	(11) M51-WFPC2-POS3-COPY	WFPC2, IMAGE, WF3-FIX	F336W	CR-SPLIT=DEF			2590.0 Secs *[==>(Split 1)]* *[==>(Split 2)]*	*[1]*

Orbit Structure